

REMARKS

Claims 1-20 are all the claims pending in the application. Of which, claims 8-11 are allowed and claims 1-7 and 12-20 are currently rejected.

Claims 1-7 and 12-20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over previously-cited Funahashi et al. (US 4,994,662) in view of previously-cited Takeo (US 5,796,870).

In the "Response to Amendment" of the Office Action, dated January 2, 2004, the Examiner responded to some of Applicant's previous arguments. However, Applicant does not find the Examiner's response to be persuasive, as discussed below.

With regard to Applicant's argument that the prior art fails to disclose transmission means for sending the image, the Examiner now contends that Funahashi discloses this feature of claim 1 at col. 8, lines 21-40. Applicant respectfully disagrees. This portion of the reference discloses the following:

*FIG. 1C is a block diagram showing the general configuration of the second radiation image read-out apparatus in accordance with the present invention, wherein no preliminary readout is carried out.*

*Like the first radiation image read-out apparatus in accordance with the present invention, which is shown in FIG. 1A, the second radiation image read-out apparatus in accordance with the present invention shown in FIG. 1C comprises a read-out section 11, an image processing section 12, and a condition adjusting section 13.*

*However, the read-out section 11 has no preliminary read-out means, but is provided with only a read-out means 11a for carrying out a read-out operation wherein a radiation image is read out from a recording medium, such as a stimulable phosphor sheet or X-ray film, on which the radiation image has been recorded, and obtaining an image signal representing said radiation image. The read-out means 11a corresponds to the final read-out means 1b of the first radiation image read-out apparatus shown in FIG. 1A.*

Claim 1 is directed to an image sending apparatus for sending an image input from an external apparatus to a predetermined addressee. A transmission means for sending the image is recited in the claim, which is sent to the predetermined addressee. Rather than disclosing such a transmission means, the cited excerpt of Funahashi discloses a read-out means for reading a radiation image. The excerpt is silent with respect to a transmission means for sending the image to a predetermined addressee. Thus, Applicant submits that claim 1 and its dependent claims 2-5, 12-15, 17 and 19 are allowable over the prior art.

The Examiner also provided a response to Applicant's arguments related to the unnecessary image designating means. Specifically, the Examiner referred to col. 9, lines 31-47 and col. 9, line 59 - col. 10, line 8 of Funahashi as allegedly disclosing this feature of claim 1. However, Applicant submits that the cited portions of the reference fail to disclose the unnecessary image designating means for enabling designation of the image displayed on the display means as an unnecessary image. Col. 9 @ lines 31-47 describes that after an image is displayed, the region (selected from among the plurality of regions on a recording medium) to be used during the determination of the image processing conditions, a desired reproduced image density D0 corresponding to the mean-level value of the image signal corresponding to the region, and a desired image signal range L are designated with the second input means 13e. Col. 9, line 59 - col. 10, line 8 discusses what information may be designated after the preliminary readout has been completed. In other words, neither of the cited portions of Funahashi disclose or suggest the claimed unnecessary image designating means for enabling designation of the

image displayed on the display means as an unnecessary image. Therefore, claim 1 and its dependent claims 2-5, 12-15, 17 and 19 are allowable over the prior art for this additional reason.

In the Amendment, Applicant argued that the references do not disclose the claimed image list display control means for displaying an image list on the screen as recited in claim 6. Further, Applicant argued that Funahashi does not even describe an image list or displaying an image list on a screen. Rather than directly responding to these arguments, the Examiner now points to col. 11, lines 18-41 of Funahashi in the “Response to Amendment.” However, this newly-cited portion of the reference also fails to teach or suggest the claimed image list display control means. Instead, col. 11, lines 18-41 discloses entering information about the use of a region selecting mode and displaying images on a display means. Hence, claim 6 and its dependent claims 16, 18 and 20 are allowable over the prior art.

Applicant submits that claim 7 is allowable for reasons analogous to those for claim 6.

With further regard to claim 12, Applicant submits that the prior art fails to disclose the features of the claim. The Examiner asserts that Funahashi discloses the features of claim 12 at col. 14, lines 3-14, but Applicant respectfully disagrees. Lines 3-14 describe that a judgment is made as to whether the mode of adjusting the readout conditions for the final readout from the preliminary readout image signal is the region selecting mode. By contrast, claim 12 recites that the display means comprises a screen including an unnecessary image list display area, which displays a list of accompanying information of the unnecessary image. The cited portion of the reference simply fails to disclose this feature of the claims. Thus, claim 12 is allowable for this reason also.

Also, the prior art does not teach or suggest that the plurality of addressees are interconnected by a network, and the unnecessary image comprises an entire image read-out from the external apparatus, as recited in claim 19. The Examiner points to col. 16, lines 36-52 and col. 14, lines 20-35 of Funahashi as allegedly disclosing the features of claim 19, but the cited portions of the reference are silent with respect to a plurality of addressees being inter-connected by a network. Therefore, claim 19 is allowable for this additional reason.

Also, Applicant submits that the claims are allowable over the prior art for the reasons noted in the Amendment filed November 3, 2003.

Applicant would like to thank the Examiner for conducting the interview on April 7, 2004 with Applicant's representative. During the interview the claims of the present invention and their differences from the applied references were discussed, as described below.

In the interview, claims 1, 6 and 7 of the present application were discussed with regard to the teachings of the Funahashi and Takeo references. No agreement was reached as to the disposition of the claims, but the Examiner agreed to consider the remarks submitted herein.

Based on the interview, it appears that the Examiner's rejection of the claims rests on his belief that the limitation of "sending the image" in claim 1 is too broad. Applicant's representative explained that sending the image to the predetermined addressee is quite different from what is disclosed in the applied references, but the Examiner thinks that feeding the preliminary read-out image signal SP into the computer system 70 corresponds to sending the image in claim 1. See col. 13, line 59 - col. 14, line 2 of Funahashi. Applicant's representative

responded by pointing out that the computer system 70 simply displays the image signal, without the system having a transmission means for sending the image to a predetermined addressee.

Alternatively, the Examiner argued that the computer system 70 can send the image signal. In response to this argument, Applicant's representative pointed out that such sending of the image signal is not disclosed in Funahashi.

Further, the Examiner contends that other prior art would disclose the claimed transmission means for sending the image. However, even if the Examiner's contention is true, at this time, the Examiner has not applied such a reference.

With regard to the unnecessary image designating means for enabling designation of the image displayed on the display means as an unnecessary image of claim 1, Applicant's representative argued that Funahashi does not disclose this limitation of the claim. Rather, Funahashi relates to judging whether a region of an image should be used.

The radiation image recording apparatus disclosed by Funahashi et al. irradiates an object and records a radiation image of the object on a stimulable phosphor sheet.

The radiation image readout apparatus disclosed by Funahashi et al. scans the stimulable phosphor sheet with stimulating rays, reads out the radiation image on the sheet, and converts the image into an analog signal. Further, the radiation image read-out apparatus converts the analog signal into a digital signal to obtain digital image data.

By contrast, the image sending apparatus of the present invention sends the digital image data to addressees, e.g., image display apparatuses of internists, surgeons and the like, who have requested transmission of the digital image data.

As described above, it is clear that the image sending apparatus the present invention is completely different from the radiation image read-out apparatus of the cited reference.

(2) Unnecessary Image Designating Means (Claim 1)

In the cited reference, judgment is made on whether it is preferable to use a region of an image as a standard for condition setting for subsequent processing. If it is judged that it is not preferable to use the region as the standard, a more appropriate region is selected. On the contrary, in the present invention, judgments are made by the unnecessary image designating means (claim 1) on each of the images regarding whether it is appropriate to be transmitted. If an image is judged to be inappropriate for transmission, the unnecessary image designating means designates the image as an unnecessary image. Therefore, the object to be judged is different between the present invention and the cited reference (cited reference: a region of an image; present invention: an entire image). Further, the purpose of judgment is different between the present invention and the cited reference.

(3) Transmission Control Means (Claim 1)

A method for compressing dynamic ranges in Takeo is carried out by an image processing means 54 of cited reference, Funahashi et al. The method for compressing dynamic ranges is a method for obtaining an image, of which dynamic range has been compressed, from an original image. On the contrary, the transmission control means of the present invention controls transmission so that each of images is either sent or not sent to the addressee. Therefore, the object to be processed is completely different (cited reference: processing based

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on pixels constructing an image (image properties are changed in processing); present invention: processing is performed in units of individual images).

Further, the cited reference (column 19, lines 48-57 in Takeo, US 5,796,870) discloses that an unsharp mask signal obtained by unsharpening a region such as tissue which is unnecessary for reading an image and noise in a radiation image is adopted for dynamic range compression. Therefore, the cited reference is irrelevant to controlling whether an entire image is sent, as carried out by the transmission control means of the present invention.

The Examiner requested that Applicant file a response to the Office Action, so that he can review Applicant's arguments in more detail prior to making a final decision on the merits of the arguments.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

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Respectfully submitted,



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